Review of findings in 2013 about pipelines crossing critical habitat in the upper Colorado River

Tildon Jones, FWS Supervisory Fish Biologist in Vernal, Utah, worked with the EPA regarding a future remedial response plan for primarily crude oil spills on the Green River. He learned that some pipelines have shutoff valve, but there is a quantity of petroleum product that will leak even if they work correctly. In other words, the shutoff valve stops continuous flow, but whatever is in the pipe past the shutoff will still spill. Chevron had 2 spills in Utah in the last few years (Red Butte Creek and Willard Bay), and he believes the pipeline that runs past/through Ouray NWR is part of that deteriorating system. After they demonstrated the spill velocity and distance projections for the Green River and what types of decisions we might be forced to make, the whole idea makes him very nervous regarding decisions like letting all the RZBs go since they are in hatcheries and focusing on Colorado pikeminnow and humpback chub. Tildon advocates expending effort on estimating the costs of prevention rather than working on the response and remediation of a spill in critical habitat and no one is currently doing that.

After meeting with the EPA, it sounds like a lot of the pipelines are natural gas and would not pose a spill problem. If they burst, it would send natural gas into the air, not into water. They is some question here. EPA queried the group about what the expected outcomes might be. Some of the pipes run under the river. A major rupture could bubble methane through the river, we should find out what kind of chemistry that would produce. Probably carbonic acid, which may create rapid pH changes, conditions fish don't do well in.

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Dustin Hubbard of the Department of Transportation with (DOT) helped the Recovery Program identify pipelines that cross critical habitat in the Upper Colorado River. He queried DOT's GIS and spoke with oil companies. Problematic petroleum-products could include a large range of by-products that are used for the petroleum industry. It could include crude oil and refined products and diesel/gas/kerosene, etc. Dustin located 6 operators whose pipelines cross critical habitat; Williams Pipeline, Chevron, Encana, Enterprise Products, Anadarko, Plains Pipeline. He then emailed operators requesting information on type of a shutoff valve manual and whether it is remotely operated. If they are manual, and there was flooding, it could take them a couple of days to get in to shut the valves. He provided a map of the location with exact coordinates of pipeline crossings, whether they have river crossing valves or not, and what type of product the pipeline transports. Dustin felt that many of the pipelines that cross the rivers of interest are produced water lines. This type of line is generally mainly water from the surrounding area, but can have some hydrocarbons in it.

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Below: Crude-oil and CO2 Pipelines owned by Cheveron, this may be Brown's Park and above critical habitat.





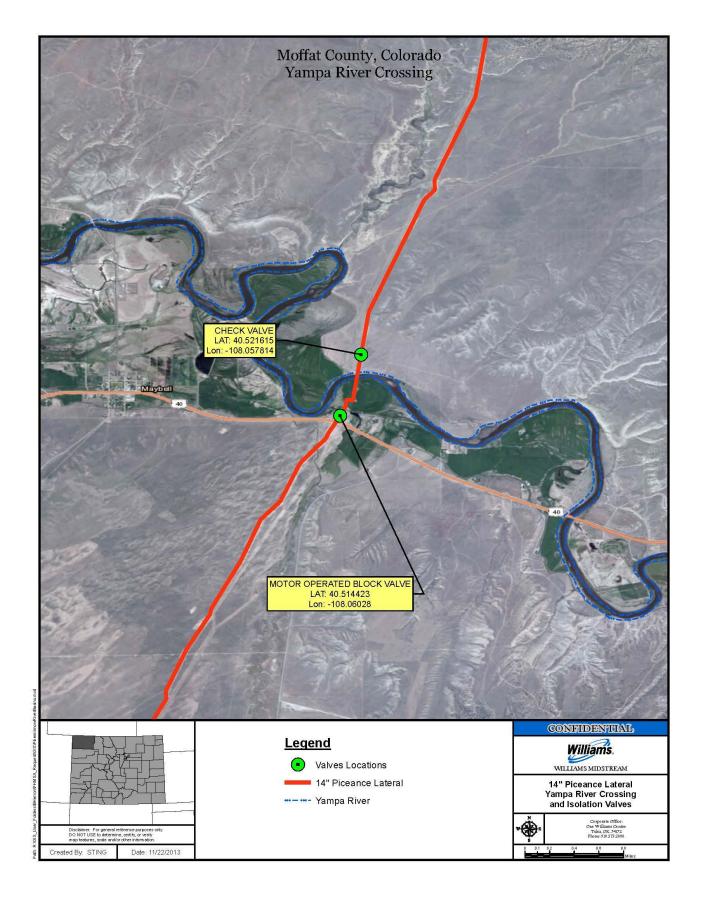
Pipelines Owned by Cheveron

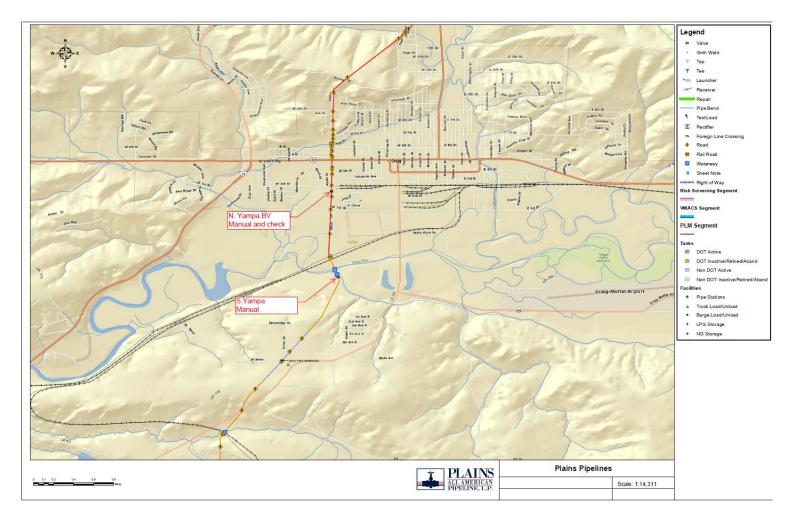
Pipeline owned by Cheveron with the above map

Pipeline System	River crossed	Description	Valve Apprx. Coordinates (WGS84)		No-valve Apprx. Coordinates		Comments	Label on
			Lattitude	Longitude	Lattitude	Longitude	Comments	Map
Salt Lake Crude (Comprised of two parallel lines)	White River - West Crossing	Check valves (West - 2)	40.045978	-109.012905				Α
		East Block Valve	40.049152	-108.996437				В
	White River - East Crossing	East Block Valve	40.082142	-108.860534				С
					40.075587	-108.873572	Coming out of Rangely station	1
	Duchesne River	West Block Valves (2)	40.151846	-109.744193				D
		East Block Valves (2)	40.153314	-109.727858				E
	Green River	West Block Valves (2)	40.141607	-109.63559				F
		East Block Valves (2)	40.129516	-109.602583				G
Salt Lake Crude Non-regulated Gathering Line	White River - East Crossing				40.096691	-108.811623		2
Raven Ridge	Green River East Block V	East Block Valve	40.395908	-109.323325			Raven Ridge crosses the Green River twice	Н
					40.404867	-109.334212		3
	Green River North	South Block Valve	40.856332	-109.140109				1
					40.864393	-109.139833		4

River Crossing	Pipeline(s) Crossing River	Shutoff Valve @ Crossing? (Answer Yes/No)	Manual/Automatic	Lat/Long of River crossing
Green River (Uintah	Rocky Mountain Red	Yes	Manual Upstream, Check	N/A
County, UT)	line		Valve Downstream	
Green River (Uintah	Rocky Mountain	Yes	Manual Upstream, Check	N/A
County, UT	Brown Line		Valve Downstream	
White River (Uintah	Rocky Mountain Red	Yes	Manual Upstream, Check	N/A
County, UT)	line		Valve Downstream	
White River (Uintah	Rocky Mountain	Yes	Manual Upstream, Check	N/A
County, UT)	Brown Line		Valve Downstream	
Colorado River	Rocky Mountain Red	Yes	Automatic Upstream, Check	N/A
(Grand County, UT)	Line		Valve Downstream	
Colorado River	Rocky Mountain	Yes	Automatic Upstream, Check	N/A
(Grand County, UT)	Brown Line		Valve Downstream	

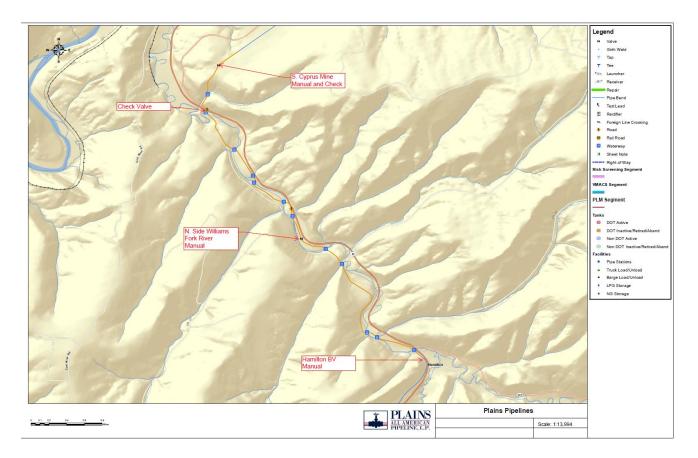
The above provided to Dustin Hubbard by Nhan Truong, Pipeline Compliance Engineer, for Enterprise Products Partners which is an energy partnership (<u>NVTruong@eprod.com</u>) Unfortunately, they were not able to supply the Lat/Long for the River crossing.





Plains Pipeline above

Baggs WY 6" Yampa River	Latitude Longitude		Valve			
S. Yampa BV	40.497	-107.56	Manual valve			
N. Yampa BV(Mack Lane)	40.51	-107.56	Manual Valve and Check			
Baggs WY to Rangely 10" (Purged with nitrogen and OOS)						
S. Yampa BV	40.552	108.196	Manual			
N. Yampa BV	40.543	-108.2	Manual			



Plains Pipeline above

Williams Fork River		Lattitude	Longitude	Valve	
Hamilton Va	lve	40.371	-107.61	Manual	
N. Side Willia	ams Fork, MP 99.07	40.39	-107.63	Manual	
Check Valve		40.411	-107.65	Check	
S. Cypress M	ine, MP 95.94	40.419	-107.65	Manual and Check	